

Attorney Docket No. 06618-503001
Application No. 09/922,852
Reply dated January 27, 2004
Response to Office Action dated September 29, 2003

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

Amendments to the Specification have been made to make the corrections as suggested by the Examiner. However, the requested changes to page 6, line 15, and page 10, lines 1-7 have not been made, since the "flexibility in the desired rate" is not found in those paragraphs.

Corrected drawings are attached herewith adding PRIOR ART to the legend of Figure 1. Figure 3 has been corrected to "rate ≤ 1 ". Figure 7, has been amended to show a parallel concatenated coding arrangement for the outer coder as described in the specification at page 10, lines 14-23.

Initially, the present system was intended to cover a special kind of coder called a turbo coder. Turbo coders, as described in the Background, effectively have a first encoder, an interleaver, and then a second encoder that has a rate less than one; that is it puts out more bits than it receives. The present system changes this paradigm by using a second encoder, the so-called "inner" encoder, which has a rate of one, or close

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to one. By doing this, the coder puts out fewer total bits, thereby reducing the traffic over a channel.

Such is not taught or suggested by Wang. Certain claims are amended herewith to emphasize these patentable distinctions, and as amended, it is respectfully suggested that all of the claims should be in condition for allowance.

Claim 1 is amended to recite an interleaver function in between the first and second encoding. The interpretation taken of the Wang reference is that the first encoder is followed by a second encoder which is a bit repetition system. However, nowhere in the Wang reference is there any teaching or suggestion of a first encoder, interleaver, and second encoder, where the interleaver interleaves the bits from the first encoder and a second encoder has a rate approximately equal to one. Therefore, claim 1 as amended should be allowed for these reasons, along with the claims which depend therefrom. The dependent claims should each be additionally allowable on their own merits.

In addition, the indication the claim 6 represent allowable subject matter is appreciatively noted, and claim 6 has been amended into independent form and is retained.

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Claims 19-20, 23, 24, 26, 29, 36-39, 41, 42, 46, 48-51, 53, 58-60, 60 and 62 stand rejected under 35 USC 102 as being unpatentable over Bliss.

Claims 19, 23-25, 29-33, 48, 53 and 54 stand rejected as being anticipated by Rhines. These contentions are respectfully traversed.

First of all, Bliss is not a turbo coder, and teaches nothing that would teach one of ordinary skill in the art to use a turbo code. The output data from the coding in Bliss is data that is either decoded from a disk or can be written to disk. As the rejection points out, a Reed-Solomon code can be used when writing onto the disk. However, this does not meet the limitations of the special outer coder, interleaver and inner coder where the inner coder has an output connected to a channel. Moreover, there is no teaching or suggestion of an interleaver in Bliss, and the coding done for an optical disk is quite different that is done according to the present system.

Rhines does, in fact, teach a turbo coder type device with an inner coder 150. The rejection attempts to read the inner coder on the media channel coder. It appears, however, that this meet the media channel encoder uses sequence violation flags, which are effectively based on an error correction code.

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By adding the error correction code, it is clear that the rate could not be substantially rate one; extra bits would have to be added to provide the error correction function. Therefore, it is respectfully suggested that this does not render obvious the claims.

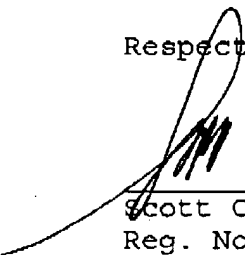
The remaining claims should be allowable for similar reasons.

In view of the above amendments and remarks, therefore, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited.

Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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